PROMOTION AS THE CAUSE OF CRISES

SUMMARY

Two groups of crisis theories, 748. — Failures the chief phenomena in the crisis, 749. — Promotion activity the cause of prosperity, 750 — Relation between promotion and failures, 752. — Newly-promoted concerns fail, 752. — Old concerns fail because of competition of new, 755 — All kinds fail because of inability to cope with dynamic conditions, 756. — The part of credit in the cycle, 761. — Exhaustion of loanable funds, 761. — Falling reserve ratios or falling reserves, 762. — Gold movements before crises, 763. — Break down of credit not the main cause of crises, 764. — Crisis failures include insolvent as well as solvent concerns, 765. — Promotion the cause of crises, 766.

THEORIES of crises may be divided into two chief groups. One holds that industry is normally in a condition of stable equilibrium and that a crisis is the disturbance of this equilibrium by unpredictable causes. The second maintains that industry is normally unstable and that its equilibrium is eventually ruptured by steadily operating and cumulative forces.[1] This article falls in the second group. It will attempt to show that even when prosperity is not interrupted by extraneous causes such as natural calamities (crop failures, fires, floods, and so on) or by political disturbances, threats of war, and the like, active promotion, the cause of rising prosperity, still sets in operation forces which lead to a financial crisis, tend to check promotion activity, and cause a return to a condition of depression such as characterized the beginning of the period.

It is often said that industrial depression and financial disturbance are but different phases of a given situa-

[1] Jones, Economic Crises, ch I, gives a good discussion of the theories of industrial equilibrium, cf. also Taylor, Kinetic Theory of Crises, University of Nebraska Studies, January, 1904

tion.[1] But just *how* the depression and the financial phenomena are related remains to be satisfactorily explained. It is proposed, as just stated, to show that crisis and depression are the logical sequence of the business activity of the preceding period. Before entering on such an explanation, it is necessary to make clear the essential features of the financial crisis, on the one hand, and of the industrial depression, on the other.

The financial crisis, I maintain, is a situation in which a larger number than usual of debtors are unable to meet their obligations, primarily because industry and finance have failed to yield returns as large as the estimates upon which borrowings or subsequent expenditures were based, and secondarily because of a contraction of credit. Many writers are inclined to lay sole stress upon the failure of firms which suspend because they cannot obtain the customary credit accommodations — a phenomenon here classed as secondary. While such failures are strikingly prominent and very numerous during panic times, it should be recognized that the chief failures are those of genuinely insolvent concerns which have not made good during the preceding period of rising prosperity. In fact, the panic stage is very often precipitated by the failure of a prominent firm or firms. The crisis of 1837 in the United States was preceded by failures in the fall of 1836 of English firms doing business with this country. In 1857 the panic began with the failure of the Ohio Life Insurance and Trust Company. The difficulties of 1873 commenced with the failure of the New York Warehouse and Security Company and the banking house of Kenyon, Cox & Company. In 1884 trouble began with the failure of the brokerage firm of Grant & Ward and the Mercantile National Bank. The failure that

[1] Cf Taussig, Principles of Economics, vol i, p 400 Hull, Industrial Depressions, however, says there is no relation between the two

marked the turning point of prosperity in 1893 was that of the Philadelphia and Reading Railroad. In 1907 one of the initial episodes was the failure of the Mercantile National Bank owing to its furtherance of copper enterprises and speculation.

On the industrial side of the crisis cycle the dominant factor is the condition of promotion.[1] If many new enterprises are being started the increased demand for capital goods means heavy orders placed with producers, a greater demand for labor, enlarged profits, increased railway earnings, and so on. The increased demand for capital goods is reënforced by heavier demands for consumption goods, and general rising prosperity is the result. Good times, therefore, are due to the investment of the social savings. If investment slows up all the phenomena of business depression appear. Professor Commons [2] says that " over-production " is mainly the " under-consumption " of wage earners. But is it not more nearly the case to say that " over-production " is the " under-consumption " of *investors* ?

However much writers disagree as to what causes the transition from good times to bad, there is an increasing unanimity of opinion that rising prosperity is due to promotion activity, and depression to a relative inactivity in investment. Taylor brings this out clearly in his chapters on crises in *The Credit System,* as does Mitchell in *Business Cycles.*[3] Burton [4] takes a similar position.

1 See my article, " Analysis of the Crisis Cycle," in Journal of Political Economy, October, 1913

2 Races and Immigrants, pp 156–157.

3 Professor Mitchell and I, each working independently, have reached conclusions regarding crises and the general cyclical movement of business which are in substantial agreement He recognizes this in his book (p 603) Under date of May 3, 1913, Professor Mitchell wrote me: "From your April article I infer that we have stated the problem in much the same way, applied similar methods of analysis, and reached much the same results But I think you have discovered several points which have escaped me, and that you will find the interest in your results heightened rather than diminished by the appearance of my book That surely ought to be the case If you and I are really working by scientific methods our investigations ought to bring us out at the same conclusions, and that we confirm one another ought to be a matter of interest to those who are taking economic theory with seriousness "

4 Crises and Depressions, p 306

He says that the important feature in the occurrence of crises and periods of depression "is the increasing proportion of expenditures in preparation for increased production, manifesting itself in the formation and prosecution of new enterprises and the building on a large scale of railroads, ships, and factories, and the providing of other means to meet increased demands. At times these expenditures for increased production attain an unusual proportion as compared with the ordinary expenditures for annual consumption or support." Tougan-Baranowsky [1] says: "Pendant les phases de prospérité, on crée le nouveau capital fixe de la société. Toute l'industrie sociale prend une orientation particulière: la fabrication des moyens de production passe au premier plan. La production du fer, des machines, des instruments, des navires, des matériaux de construction devient bien plus considérable qu'auparavant." Two writers of works less scientific than those above cited have come to the same conclusion. Hull [2] states that "what we call booms result almost entirely from the great periodic increase in the volume of construction, and what we call industrial depressions result almost entirely from the great falling-off in the volume of construction." Johannsen [3] says: "An augmentation in the rate of new constructions brings with it an augmentation of the country's business activity; and an increase in this activity, in turn, will increase the demand for new constructions; the one factor constantly invigorating the other. The governing factor, however, and the one that starts this reciprocal action, must be found in enterprise and new constructions."

But what is the relation between promotion, the dominant element in the industrial phase of the crisis

[1] Les Crises industrielles en Angleterre, p 271

[2] Industrial Depressions, p 105

[3] A Neglected Point in Connection with Crises, p 7

cycle, and failures, the essential factor in the financial phase of the cycle? An answer to this question is necessary before a working theory of crises can be said to be evolved. It is not enough to say that the failures are due to miscalculations in business. That does not explain why there should be more miscalculations at one time than another; nor does it show the relation between the industrial and financial phases of the crisis. The problem put in another form is: to what extent has promotion been a factor in bringing about these extra failures which constitute a crisis?

Analysis of any crisis situation shows that the two phenomena, promotion and failures, are closely related. Yet the relationship is more complex [1] than writers admit who say that the failures are due merely to over-investment, or improvident investment, or exhaustion of capital, or some one factor. Not one class, but a considerable number of classes of failures directly or indirectly connected with promotion activity may be marked out. I have outlined three of the most important.

First, there are the failures of the newly-promoted concerns because of miscalculations in promotion. Here is found the much-talked-of anarchy of production. Investment is often carried too far in a given line and the market finally becomes overstocked with the particular commodity or service produced by these new concerns. Or, it happens that promotion is premature; as for example in railway building before our crises of

[1] Professor Taussig, Principles of Economics, vol i, pp. 410–411, gives recognition to the complexity of the crisis situation He says "In sum, the causes of industrial depression seem to be reducible to various kinds of maladjustment, all connected with the intricate division of labor and the long stretch from production to consumption. There is likely to be maladjustment in the planning of some particular kind of capital, — railways, or electric enterprises, or textile mills There is likely to be maladjustment in a greater addition to the total community's capital than is justified by the total of its available savings There is excess or deficiency in the stocks of dealers and middlemen There is accentuation of the whole series of misfits because of the psychological factor"

earlier date. While the capital is not from the social standpoint wasted, yet if the enterprises in question cannot find or stimulate enough demand for their products or services to meet their obligations they must sooner or later pass into receivers' hands.

The tendency for investment to follow a single line and to keep up until that line is greatly overdone is, I believe, more characteristic of the earlier crises than of the later ones. The era of distinctive railway crises apparently passed away with the crisis of 1884. The promotion activity preceding the European crisis of 1900–01 and the world crisis of 1907 spread out over much broader fields than formerly, resulting in proportionately less overdoing of any particular line. No one kind of investment was conspicuous in either case.

A study of the lines of investment followed in the last twenty or thirty years convinces one that investment manias are still present, but that they are localized and short-lived. Russia has recently had a more pronounced railway mania than any other country except the United States.[1] Germany extended her electric lighting system by leaps and bounds.[2] The boom in bicycles culminated in 1896, when over £17,000,000 of English capital went to cycle companies, as contrasted with £155,000 two years later. In the United States also a minor bicycle crisis occurred in 1896, as evidenced by the failure of over 5 per cent of all manufacturers and dealers in cycles.[3] Another boom occurred in breweries and distilleries when, in 1894–1905 inclusive, over £88,000,000 of English capital was invested in those lines. Of this amount over £54,000,000 was invested during the three years 1896, 1897, and 1898.

[1] Raffalovich, Le Marché Financier, 1898–99, p 435

[2] London Economist, 1900, p 1072

[3] Bradstreet's, 1897, p 354

In fact, in 1898 breweries and distilleries ranked first among English industrial undertakings.[1] In 1902 and 1903 there was a boom in stores and trading companies. In 1905 an unusually large amount of English capital went to build railways in the Americas, especially in Argentina, and in India, China, and Japan. The mania characteristics, however, have been more pronounced in mining investment than in most other lines. In 1895 occurred the boom in South African mining shares. In 1896 the Westralian mining mania reached its height. In a single month — April, 1896 — eighty-one Westralian companies were launched. Between March 1, 1894, and September 30, 1896, no fewer than 731 Westralian gold-mining companies asked British investors to subscribe an aggregate of almost £76,000,000.[2]

Over-investment or partial over-production, always an inadequate explanation of the great mass of failures which make up a crisis, is surely less prominent than formerly. This relative absence of mania in promotion should be a factor in reducing the severity of crises and may account in part for the short-lived effects of the crisis of 1907. Possibly it was a factor also in prolonging the period of prosperity in the United States from 1897 to 1907, with a slight interruption in 1903, — a period double the average length of good times in the past.

Of course there will always be some miscalculations in investment. Companies are formed to produce new commodities. There is no possible way to anticipate the demand for an unmarketed commodity, no precedents of demand in former years to be followed. Necessarily, they must first prepare the product for market and trust to their ability to stimulate a sufficient

[1] Journal Royal Statistical Society, vol lxi, p 145

[2] Van Oss gives a good account of the boom in "Kangaroos" in Nineteenth Century, vol xl

demand. It is inevitable, therefore, that losses as well as gains among such companies should be great, that much capital should be wholly or partially wasted. The losses under such circumstances cannot be due to a lack of managerial ability, since the complete avoidance of mistakes in investment would necessitate more than human foresight.[1] For this reason the proposed socialistic oversight of investment, or any other plan, would not avail to protect from many mistakes in promotion.

A second class of failures arises from the competition of the newly-promoted companies with old concerns. The newer companies have the advantage of freely introducing the latest inventions and processes, of locating advantageously with reference to sources of raw materials or to markets and the like. It is by such competition that, as Ely says,[2] the minimum expenses of production today become the marginal expenses of production tomorrow. This competition works hardship to the old concerns, yet it is by this process that the consumer receives the benefit of changes in the course of progress. A familiar example of the operation of the principle is the construction of houses for hire even after a city has a large number of unrented houses; because the preference of renters will be for the new, modern houses. It will be the owners of the old houses and not the later enterprisers that will suffer from the increased investment in rental properties.

Competition of new concerns with the established concerns also involves more than stated above. Not only is there competition between such allied lines as electricity and gas, cycles and automobiles, phonographs and pianolas, but between automobiles and

1 Jones says that the existence of improperly used capital indicates a lack of managerial ability, but that generalization seems too broad. It would not be applicable in this case

2 Outlines of Economics, p 174

furniture, phonographs and sewing machines, and so on. The organization and operation of new companies involves not only the stimulation of demand for more commodities but, whenever possible, the withdrawal of demand from old lines to new. There is a limit to the amount of goods the consumer can procure; if he buys commodities of one kind, it cuts down his ability to purchase commodities of other sorts.[1] The placing of new or additional commodities on the market undoubtedly changes the currents of demand and it is beyond human powers to foresee those changes — hence miscalculations.

In the third class of failures are those of concerns which have been unable to cope with the rapid changes in the cost of production and operation so characteristic of a prosperity period. The producer has to reckon not only with rapid changes in demand. Even when demand is sustained or increasing, unforeseen changes in cost of production often result in fatal miscalculations. In the first place, the increased demand for capital goods to equip the new concerns upsets completely the old price schedules, since it means heavy demands for some commodities, such as coal and iron, and little or no increased demand for other less generalized commodities that do not enter so largely into schemes of promotion.[2] It is true that prices are normally dynamic; yet during a period of active

[1] Cf Patten, The Theory of Prosperity He maintains that the downward tendency of prices is due, not to the competition of producers, but to the power of substitution possessed by consumers If the newly produced commodities satisfy more intense wants than the old, demand is transferred from the old to the new See pp 70, 71

[2] It is a matter of great importance to business, not that promotion activity through credit expansion causes prices to rise, but that it causes such unequal rises This disturbance in the field of production is a more important feature of rising prices, I believe, than is the changed relation between debtor and creditor given so much attention by Professor Fisher and others Compare also A S Johnson, Introductory Economics, p 225: " The business relations most seriously disturbed by price changes, however, are those of creditor and debtor "

promotion price fluctuations are greatly accentuated.[1] Table I gives the rise of prices for different groups of commodities for a succession of prosperity periods. Not only is the *amount* of rise significant, but the difference in rise between different groups and between the same group of commodities in the several periods is striking.

TABLE I[2]

RISE IN PRICES OF GROUPS OF COMMODITIES IN THE UNITED STATES BEFORE A CRISIS (IN PERCENTAGES)

Before the Crisis of	Food	Cloths and Clothing	Fuel and Lighting	Metals and Implements	Lumber and Building Materials	Drugs and Chemicals	House Furnishing Goods	Miscellaneous	All commodities
1848	19.4	1.1	100.2	16.2	5.0	3.5	21.6	13 1	5.0
1857	48 6	28.9	35.2	10 0	17.4	26.2	25.7	20.9	14.7
1873	28.9	23.6	11.1	13 1	25.1	5.9	13.0	13.4	12.1
1884	21.7	14.7	24 5	9.0	21.2	1.9	4.2	15.0	11.9
1893	13.4	.4	10.6	2.7	1.5	6.2	5.6	7.3	2.5
1903	38.1	17.0	59.2	57.5	31.4	31.6	31.3	25 2	26.4
1907	10 0	18.9	4.8	30.9	21.0	8.3	8.6	13 8	14.6

The increased demand for goods to further promotion and for consumption means also an increased demand for labor, and hence an upsetting of old wage scales. It is true that general wages do not rise more rapidly than

[1] Contracts for production are greatly disturbed by these rapid changes in price Hull, op cit, pp 118–119, says "We have known of iron-furnaces and steel-works which were not in operation when the boom commenced, and in consequence made no contracts during the low-priced period, but after prices had advanced largely these plants were put into operation, consequently made all their contracts at the high prices, and were thus enabled to reap large profits On the other hand, we have known of other concerns that contracted all they could make for more than a year ahead at the low prices, and, before they were able to fill these orders, the advance in labor and raw materials so enhanced the cost of manufacture that the boom brought them out with a loss For this reason, the profits of the producers of construction materials during a boom are, as a rule, very disappointing"

[2] Computed from the Bureau of Labor's Relative Wholesale Prices of Commodities The figures represent not the average yearly rise, but the *difference* between the lowest and highest prices of the period

prices. Much has been written regarding the inertia of wages. Professor Commons even evolves a crisis theory from the wage situation. He says that immigration and the tariff together prevent wages from rising as rapidly as the prices of commodities; thus profits expand. The enormous increase in profits stimulates production until over-production results, and so on.[1] But the individual producer is not concerned with *general* wages any more than with *general* prices. He is interested only in the rate of wages he himself is obliged to pay. While the wages of some kinds of labor rise slowly, the wages of other kinds of labor rise rapidly — even more rapidly than do prices. The result is that many employers of labor find it increasingly difficult to secure the necessary wages fund.

According to the United States Bureau of Labor full-time weekly earnings from 1900 to 1907 advanced 17.6 per cent; and prices during the same period rose 17.2 per cent, or practically to the same extent as wages. But when wage changes in *particular* industries are examined,[2] it is found that the rise in hourly wages for the same period, 1900–1907, varied from 6 per cent to 44 per cent. Out of the 41 industries given, 28 show a higher rise than the general average of 17.6 per cent, and 13 fall below the general average. Within particular industries even wider wage fluctuations occur. For example, in a typical New England cotton mill the extreme variations in wages in 1910 as compared with 1898 were, on the one hand, a falling off of 18 per cent in the hourly earnings of oilers in the spinning department, and, on the other hand, an increase of 66 per cent in the wages of spoolers. The rapidly changing wage scales in every line undoubtedly is a very important

[1] Races and Immigrants, pp. 156–157.

[2] Investigation of Wages and Prices, vol i, p. 53, in Senate Documents, vol. 63.

factor in producing the miscalculations which occur during the periods of business activity.[1]

Another element in the cost of production — the rate of interest — is also subject to extreme fluctuations. Promotion activity calls for heavy loans to finance the new companies, and the resulting increase in production requires a corresponding increase in commercial loans. Active speculation during the period of prosperity is also an important factor in increasing the demand for loans. The outcome is that interest rates are much higher during a period of active investment than when promotion is relatively inactive. For example, putting it on an index number basis, the average yearly rate of the Bank of England was 127 during the three periods of active promotion outlined in Table II, as compared with 100 during the three periods when promotion had declined.

TABLE II

DISCOUNT RATE OF THE BANK OF ENGLAND

Period	Average Yearly Rate[2]	Condition of Promotion[3]
1872–74	4.78	Active
1875–79	3.36	Inactive
1880–82	3.80	Active
1883–87	3.08	Inactive
1888–90	3.80	Active
1891–95	2.65	Inactive

[1] Mitchell in his excellent book, Business Cycles, discusses also the deterioration of the quality of labor. In the industries that find it necessary to work their employes overtime, fatigue lessens the efficiency of the laborers The pressure of orders also makes the employer willing to add to the labor force any help that may be available even altho the efficiency of such help may be far below the average. " Where humanitarian motives are not allowed to interfere with business policy, the less efficient employes are the first to be discharged after a crisis Hence the relatively small working forces of depression are the picked troops of the industrial army. When a revival has grown into full prosperity, on the contrary, employers are constrained to accept any help to be had They must take on men who are too old, and boys who are too young, men of irregular habits, men prone to malinger, even the chronic ' trouble makers ' Raw recruits of all sorts must be enlisted and trained in a hurry at the employer's expense A deterioration in the average efficiency of the working forces inevitably follows " (p. 477)

[2] Computed from figures given by De Greef, Le Crédit Commercial et la Banque Nationale de Belgique, pp 405–406.

[3] Evidenced by the applications for capital in the London market.

The total effect of promotion activity is, therefore, to cause rapid changes in particular prices, in particular wages, and in rates of interest. For this reason all industries, new and old alike, are placed upon an increasingly speculative basis. It is inevitable that many should fail; not merely because of a lack of business ability, altho, of course, the incompetent are rapidly weeded out, but because of the general upheaval in costs of production produced by promotion. Most writers on crisis subjects direct all their attention to the *nature* of investment. They overlook altogether the great disturbance of the industrial equilibrium from the *process* of investment. So important is the latter factor, I hold, that if all investment should be judiciously made, and if it turned out ultimately that there had been no wasting of capital or overcrowding of particular industries, crises nevertheless would not be eliminated.

To the three major causes of industrial disturbance described above — miscalculations in investment, increased competition from the newly organized concerns, and the disturbance to industry resulting from the rapid and unequal changes in costs of production and operation — might be added a considerable number of other factors of lesser importance, which play a part in producing the extra failures in business which constitute a crisis. Among these are speculation on the exchanges, and in land, the general laxity of business methods and morals characteristic of a period of prolonged prosperity, extravagence, lack of adequate capital, and so on. But it is not necessary for the present purpose to enter into these. All the above-mentioned phenomena together account for the fact that as time passes, there is an increasing number of enterprisers who find that their profits are dwindling, and the number of firms failing becomes larger than usual, altho the

majority, up to the very time that the extra failures begin, may still be enjoying great prosperity. As the difficulties of the minority increase, confidence in the future, which is necessary to maintain investment activity, is gradually undermined and investment slows up. With the stoppage of investment the demand for promotion commodities falls off sharply, distrust of the future becomes widespread, the demand for all commodities decreases and depression in business becomes general. This is the typical transition from prosperity to depression.

What part does credit play in the cycle? It is affected by prosperity in various ways.

In the first place, investment tends to exhaust the loanable funds of a country. Perhaps it would be more accurate to say that investment and the speculation which accompanies promotion together tend to exhaust a country's loan fund. As the prosperity period advances, an increasing proportion of the available funds is devoted to speculative purposes, so that new enterprises find it increasingly difficult to secure loans and even established business complains of the difficulty in securing legitimate credit accommodations. The expanded condition of bank loans is evidenced by the falling ratio of reserves to deposits, since deposits originate chiefly from loans. Almost every crisis is preceded by a fall in the reserve ratio.

Central banks often find themselves confronted not only by a falling reserve ratio but also by an actual decline in cash holdings. Increased business activity a country over requires larger cash holdings by the country banks for reserve purposes and increases the demand for currency in convenient form. These demands are met by a lowering of the reserves of the banks in the financial centers.

It often happens that the total reserves of a particular country are depleted by the exportation of gold. Promotion activity and general prosperity play a part in this exportation because they increase enormously the demand for goods thus creating through the expansion of credit a relatively high price level. High prices in turn encourage imports and discourage exports and help to create an unfavorable exchange. The country with the relatively high price level loses its gold. These conditions are illustrated in Tables III and IV.

TABLE III

DATES OF LOW RESERVES AND OF LOW RESERVE RATIOS BEFORE CRISES

Bank of England[1]			All Commercial Banks of the United States[2]		
	Dates of			Dates of	
Crisis	Low Reserve	Low Reserve Ratio	Crisis	Low Reserve	Low Reserve Ratio
1847	1846	1845 and 1846			
1857	1856	1856			
1866	1864 and 1865	1864 and 1865			
1873	1872	1872			
1883	1881 and 1882	1880, 1881, and 1882	1884	1882	1881, 1882, and 1883
1890	1888 and 1889	1888 and 1889	1893	1890 and 1891	1890 and 1891
1900	1898 and 1899	1898 and 1899	1903	Larger	1899–1902
1907	1906	1906	1907	Larger	1905 and 1906

[1] Compiled from Statistics for Great Britain, Germany, and France, pp 82, 83, prepared by the National Monetary Commission.

[2] Compiled from Andrews' Statistics for the United States, pp 33, 36.

TABLE IV

GOLD MOVEMENTS BEFORE CRISES IN ENGLAND AND THE UNITED STATES

England[1] (Gold is Normally Imported) Crisis		United States[2] Crisis	
1866	Imports fell off slightly in 1863 and 1864; were larger in 1865.		
1873	Falling off of imports in 1871; excess of exports in 1872.		
1883	Large excess of exports in 1879, 1880, and 1881.	1884 (Period of excess of imports.)	Imports fell off in 1881, excess of exports in 1882, small imports in 1883.
1890	Small imports in 1887 and 1888.	1893 (Period of excess of exports.)	Excess of exports was large in 1891 and 1892.
1900	Large imports.	1903 (Period of excess of imports.)	Excess of exports in 1901, small imports in 1902.
1907	Imports below average in 1903, 1904, and 1906.	1907 (Period of excess of imports.)	Exports in 1904, small imports in 1905, very large imports in 1906.

[1] Compiled from National Monetary Commission's Statistics for Great Britain, Germany, and France, p. 66.

[2] Compiled from Andrews' Statistics for the United States, p. 11.

But the usual disturbance or breaking down of the credit mechanism is not, as some maintain, the main cause or even a necessary feature of the crisis.[1] For crises have occurred when banking reserves were quite in normal condition, as, for example, before the crisis of 1893 in the United States. The year 1892 was one of low interest rates the world over. The average rate for that year for the Bank of England was 2.54; for the Bank of France 2.66; for the German Reichsbank 3.20; for the Bank of Spain 2.70; and for the Bank of Belgium 2.70.[2] In the United States the ratio of reserves to deposit liabilities for the country as a whole was 16.6 per cent in May, 1891, 18.4 per cent in 1892, and 16.9 per cent in 1893. Interest rates were also low in the United States in 1892, thus showing that loans were not demanded in excess of the funds available. This situation, it is true, is in strong contrast to many pre-crisis situations in which credit has been expanded to the uttermost.[3]

There is always a contraction of credit *after* the crisis begins, because the loss of confidence in the future which stops investment activity also causes a contraction of credit since confidence is the foundation of all credit. But loanable funds are not always scarce *before* the

[1] Cf. Fisher, Why is the Dollar Shrinking? pp. 79–80. Tougan-Baranowsky, op. cit., p. 265, says: "Lorsque le capital empruntable est en abondance, il n'y a jamais de crise financière." Hadley, Economics, p. 295, says: "The accepted view of the phenomena of commercial crises makes them the result of contractions in credit of the kind described in chapter viii."

Patron, The Bank of France in its Relation to National and International Credit, pp. 116–117, takes the sounder position that "The monetary crisis itself is almost always only an episode of the general crisis. The former has too often been erroneously considered as the cause of the latter. On this false notion was based the bank Charter Act of 1844." Leroy-Beaulieu, Economiste Français, November 30, 1907, p. 766 (also cited by Patron) speaking of the crisis of 1907 in the United States says: "As to the lack of money, and the defective organization of national banks, they have been merely accessory, and have played no part until after the crisis had begun; they may have somewhat intensified it and widened its scope, but they remain only secondary elements."

[2] De Greef, op. cit.

[3] Cf. Sprague, History of Crises, pp. 160–162.

crisis. If currency systems should be rendered so elastic that no failures ever occurred because of the inability to receive legitimate credit accommodations, crises would be less severe, undoubtedly, but no less genuine. For the reasons outlined above, there would still be years in which failures were heavier than usual, accompanied or followed by a decline in promotion activity. The contraction of credit is merely the last straw to the many firms on the verge of bankruptcy and their failures follow in rapid succession. In addition, many firms whose assets are unquestionably adequate but not readily convertible into liquid form go down in the general crash.

Jones [1] says that "A crisis is the sudden application of a critical conservatism to business transactions, leading to such a demand for liquidation as to cause a widespread inability among business men to meet their obligations." But I would put it just the opposite way: that in a genuine crisis it is the recognition of a widespread inability among business men to meet their obligations which causes the sudden application of a critical conservatism to business transactions and the general demand for liquidation. This conservatism in turn intensifies the difficulties of those in trouble and places additional firms in a precarious condition solely because of their inability to obtain customary credit accommodations.

That during the crisis year there are failures of concerns with more adequate assets than usual is shown by the rise at those times in the proportion of assets to liabilities of failed concerns. On the average of the 32 years, 1881–1912, the percentage of assets to liabilities of failed concerns is 52.5; but during the crisis years 1884, 1893, 1903, and 1907, the percentages rose

[1] Economic Crises, pp. 3–4.

respectively to 54.0, 60.6, 54.5, and 75.0.[1] But that the failures of the crisis year include as well an increased number of genuinely insolvent concerns is shown by the rise of net liabilities of failed concerns, that is, by the greater excess of total liabilities of failed firms over total assets in crisis years as compared with other years.

The *occasion* of the acute stage of the crisis, as distinct from the *cause*, is therefore the loss of confidence in the course of future enterprise. This psychological factor is manifest in every field of industry and finance. It is shown, as noted above, in the contraction of credit. It leads to unwarranted declines in the prices of stocks. If promotion has not already slowed up owing to the exhaustion of loanable funds or unwillingness of investors to buy so many speculative stocks, loss of confidence is an effective check to further investment activity and the demand for capital goods at once falls off. The loss of confidence also leads immediately to increased economies in consumption, so that the demand for consumption goods likewise falls off sharply. Retrenchment in every direction follows.

The *cause* of the crisis, as distinguished from the *occasion*, is the disturbance of the industrial equilibrium which results from the investment of social savings. Crises are therefore more severe in countries where savings or borrowings are great and investment proceeds rapidly. Those who see in crises a punishment for over-speculation, or for over-production,[2] or, as stated above, for a period of industrial debauch, are attaching prime importance to phenomena of secondary signifi-

[1] I have worked out these figures with care, but spare the reader the details.

[2] Professor Fairchild, American Economic Review, December, 1911, pp. 758–759, speaking of the underlying causes of crises in this country, says: "These are fairly well understood at the present time. A typical crisis may be said to be caused by speculative over-production, or over-speculative production."

cance. They have a viewpoint analogous to those who see in the operations of stock and produce exchanges nothing but manipulation, fraud, and gambling. It is true that promotion activity is accompanied by excesses of this kind which undoubtedly increase the severity of a crisis. But the aim should be to eliminate these excesses, not by discouraging the activity of the entrepreneurs,[1] as sometimes suggested, and thus checking progress, but by other means. Looking back over the series of crisis cycles and reviewing the great changes introduced during the successive periods of investment, it appears that railway mileage was increased and street car service expanded, that factories were built, public works erected, new mines opened, irrigated lands increased, new homes erected everywhere. Such things constitute material progress. Crises are the price of progress. The more rapid the progress, the more severe the crises.

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[1] Professor Fairchild, op. cit., p. 761, says: " What is needed is some check on the unwarranted activity of the entrepreneurs, which will make them stop and consider whether the apparently bright business outlook rests on sound and permanent conditions, or is illusory and transient."